

**DATE:** Friday, March 7, 2014

**FROM:** Tom Guttormson, Principle Technology Engineer  
Connexus Energy

**TO:** Federal Communications Commission (FCC) Staff

**SUBJECT:** Expression of Interest – Rural Trials  
Docket No. 10-90

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### **Background**

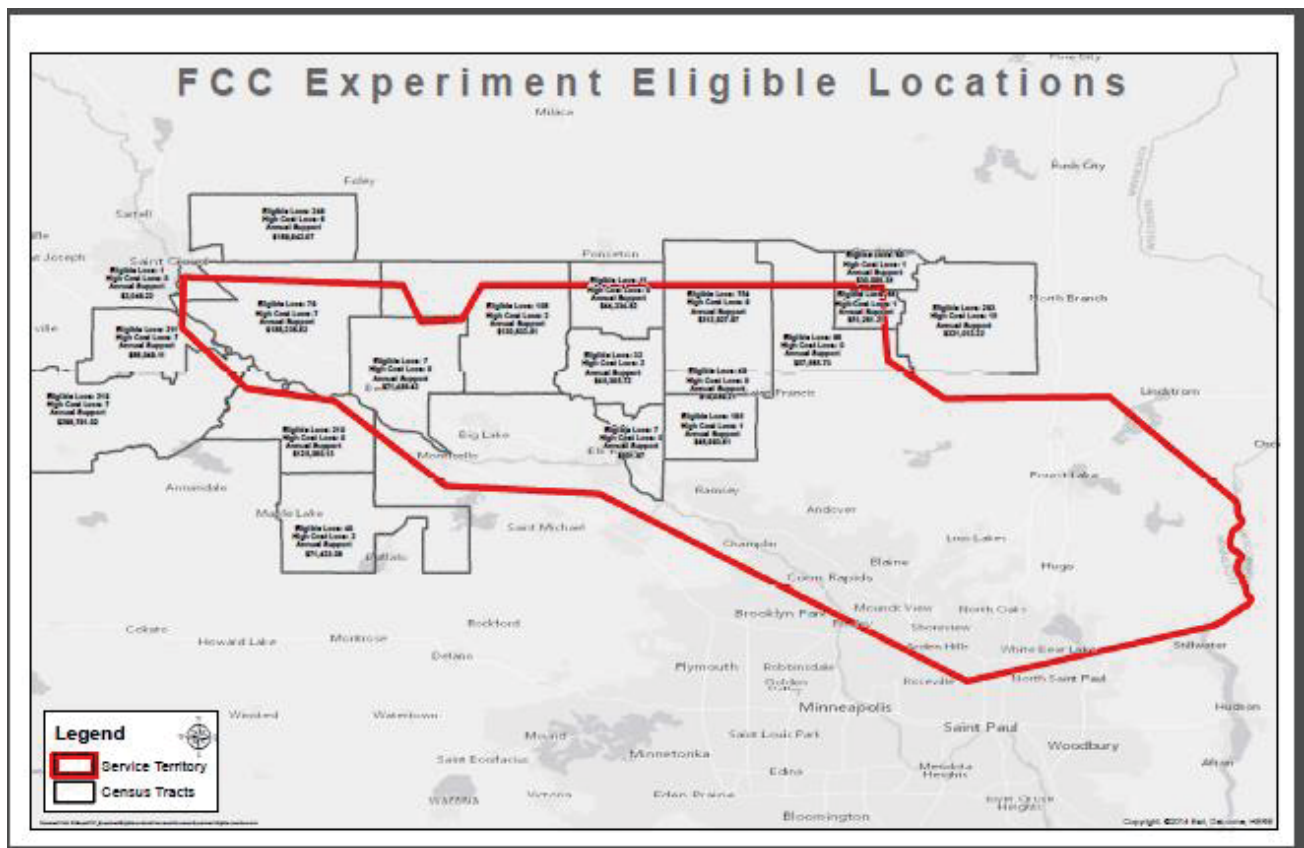
Connexus Energy is a member-owned electric utility serving 127,000 residential, agricultural, commercial and industrial customers in five counties in Minnesota; Sherburne, Isanti, Anoka, Hennepin, Chisago, Washington, Ramsey. We are not providers of telephony service to our customers, however are aware there are areas within our service territory that would benefit from enhanced broadband service. At the same time, we are in need of establishing communications backhaul across our territory to enable data transport and system control operations for operation of the electric system serving our customers. We are seeking options and opportunities for a fiber solution to provide high a solid platform that provides high bandwidth and is highly reliable as a backbone backhaul system. Our member owners would benefit from the availability of broadband for their communications needs as well as enhanced service and reliability we can provide from the electric grid with the communications network.

Connexus Energy at this time does not have an ETC license, but if funding were to be provided we would meet the requirements set forth by the FCC.

### **Geographic Territory –**

Connexus Energy is proposing to seek partnerships with other communications providers within our territory to set up a joint use system that would benefit the communications providers' customers and Connexus Energy.

The map below provides an illustration of how Connexus Energy's service territory overlies applicable census blocks in the counties served by Connexus. The following table provides a list of census block information identified by the FCC's Connect America Model as being eligible for funding and below is a list of census tracts for the Eol.



NAMLSAD	CountyName	TractID	Eligible High Cost Locations	Extremely High Cost Locations	Annual Support
Census Tract 301.01	Sherburne	27141030101	32	2	\$ 45,306
Census Tract 315	Sherburne	27141031500	1	0	\$ 2,048
Census Tract 112	Stearns	27145011200	219	7	\$ 298,791
Census Tract 114	Stearns	27145011400	211	7	\$ 86,049
Census Tract 1305.02	Isanti	27059130502	66	1	\$ 51,281
Census Tract 1303.01	Isanti	27059130301	68	1	\$ 30,085
Census Tract 1305.01	Isanti	27059130501	86	0	\$ 57,566
Census Tract 304.04	Sherburne	27141030404	7	0	\$ 71,499
Census Tract 301.02	Sherburne	27141030102	11	0	\$ 44,235
Census Tract 1007.03	Wright	27171100703	40	2	\$ 71,423
Census Tract 1003	Wright	27171100300	210	0	\$ 125,360
Census Tract 1306	Isanti	27059130600	754	9	\$ 312,828
Census Tract 1304	Isanti	27059130400	293	15	\$ 321,012
Census Tract 203	Benton	27009020300	248	6	\$ 169,942
Census Tract 501.07	Anoka	27003050107	48	0	\$ 19,089
Census Tract 501.16	Anoka	27003050116	185	1	\$ 48,994
Census Tract 302	Sherburne	27141030200	106	2	\$ 130,833
Census Tract 305.02	Sherburne	27141030502	7	0	\$ 502
Census Tract 303	Sherburne	27141030300	79	7	\$ 188,239
			<b>2671</b>	<b>60</b>	<b>2075082.49</b>

## **List of Anchor Institutions**

### **Schools:**

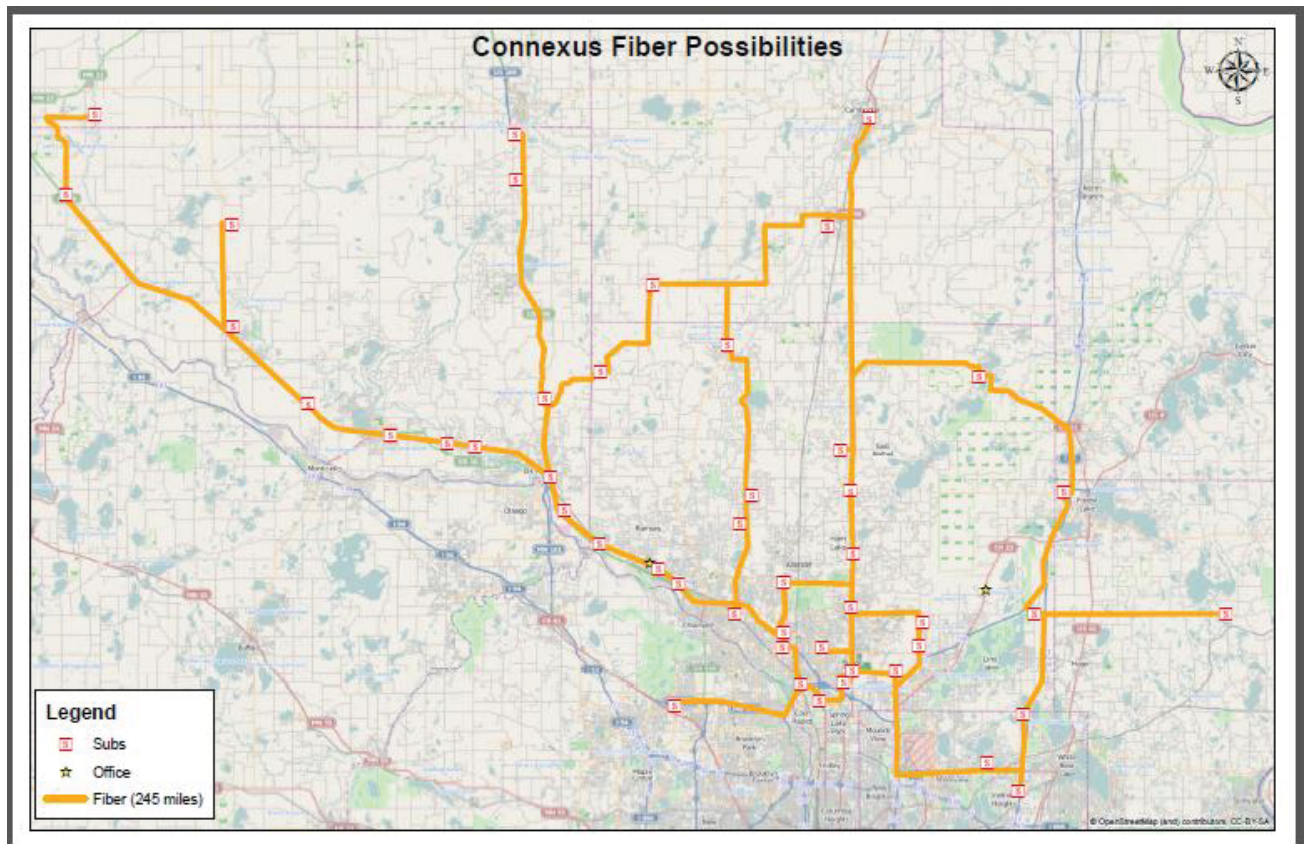
*Zimmerman Elementary  
Dist 16 Westview Middle  
ISD 12 Centennial  
Dist 911 - Isanti Primary  
Dist 911 - Isanti Middle  
Ind Dist 831 -Linwood  
Ind Dist 831 - Lino Lakes  
Ind Dist 831 - Columbus  
Zimmerman High  
Big lake Elementary  
Liberty Elementary  
Zimmerman Elem  
Pact Charter School  
Dist 911 - Isanti Int  
Dist 16 Northpoint Elem  
Davinci Academy  
Ramsey Elementary  
Morris Bye  
Coon Rapids Sr High  
Coon Rapids Jr High  
Hamilton  
District Office  
Sandcreek  
Northdale Jr High  
Eisenhower  
Bell Center  
Sorteberg  
Roosevelt Middle  
Jefferson  
Johnsville  
Blaine Sr - Dist 11  
Blaine Senior High  
University  
Madison  
McKinley Elem  
McKinley  
Oakview Middle  
Andover Elementary  
Rum River Elem  
Andover Sr High  
Blaine Sr - Chillers  
Crooked Lake  
Andover Elementary  
Ramsey Elementary*

### **Health / Medical Facilities:**

Fairview Medical Center and Clinics  
Blaine Medical Center  
Alina Clinic – Ramsey  
Riverway Clinic – Andover  
Noran Neurological Clinic  
Minnesota Eye Consultants  
Blaine MN Multi Specialty ASC  
Orthopedic Partners

## **Proposed technology**

We would plan installation of a fiber backhaul system that would enable local communications entities to extend and/or enhance broadband within the area. The following map depicts a concept plan of transport fiber in Connexus Energy's territory that would provide backhaul connectivity to substations and facilities, and broadband transport for communications providers to use for delivery of broadband services. We would make efforts to find existing fiber to cost the ring on the westerly side of this concept.



## **State and/or Local or Tribal Government Participation in and/or Support for Project**

We currently do not have partnerships with State, local, or tribal governments. We are currently investigating sharing bandwidth with the State of MN

## **Existing Providers**

AirLinkBroadband  
AT&T Mobility LLC  
Cellco Partnership and its Affiliated Entities  
Citizens Telecommunications Company of Minnesota, LLC

Charter Communications, Inc.  
Cellco Partnership and its Affiliated Entities  
Clearwire Corporation  
Consolidated Telephone Company  
Frontier Communications of Minnesota, Inc.  
Hughes Network Systems, LLC  
Nextera Communications  
Spacenet, Inc.  
ViaSat, Inc.

### **Project Timeline**

Connexus Energy is just beginning a study to develop a comprehensive communications road map to support current and future data backhaul needs. The study will include seeking partnerships with communications providers, and identifying areas where broadband backhaul would provide joint opportunities. This study is planned for completion by mid-year 2014 and could be shovel ready by Q4 2014.

### **Scalability**

Scalability will be determined as part of the communications study previously mentioned. The intent of the strategic communications roadmap is to build what is needed for current applications, and a means of expanding the system as additional needs or opportunities arise.

### **Total Utility Investment**

\$4M

### **One Time Capital Infrastructure Investment Needed**

\$4M

### **Total Project Cost**

\$8M